

season, at least along the California coast south of San Francisco. The species continues abundant along the coast south to Point Conception, where its range ends almost as abruptly as though this promontory were the 'Land's End' of California, instead of a sharp angle in a continued coast line.

The cause of this sudden termination of the distribution of Nuttall's Sparrow is not hard to postulate, when we recall that this subspecies has the characters of birds frequenting humid regions. The outer coast of California is swept by moisture laden winds, causing fogs to form continually during the summer on the hills. These winds blow hard across Point Conception almost uninterruptedly during the spring and summer months, but cease just around the Point, where the famously sunny climate of Santa Barbara is encountered, and there the range of *Zonotrichia l. nuttalli* is abruptly terminated.

THE LIMICOLÆ OF THE STATE OF WASHINGTON.

BY J. H. BOWLES.

APOLOGIES are seldom in good order when presenting a subject for scientific consideration, but the writer of this paper feels that something of the kind is necessary, perhaps, to justify him for offering the following more or less fragmentary notes. However, this most interesting family of birds has, of necessity, received so little attention in this northwestern corner of the United States that what little has been obtained may seem worthy of placing on record.

For one reason or another it has seemed best to omit practically all of the older records, the data here given being made up from either the personal observations of the writer, or from specimens concerning which he feels absolutely positive. Unless otherwise specified, all of these notes come from the west, or ocean side, of the Cascade Mountains, the counties of Chehalis, Clallam, Jefferson, and Pacific bordering on the Pacific Ocean itself. Tacoma, in

Pierce County, is situated on Commencement Bay, which is the beginning of Puget Sound farthest inland, while Seattle, in King County, is some thirty miles farther down the Sound. Dungeness is in Clallam, Gray's Harbor and Westport in Chehalis, with Willapa Harbor in Pacific County. East of the mountains is Kiona, in Benton County, and Brook Lake and Moses Lake in Douglas County, all three locations being of a sagebrush and alkaline character.

It will be of interest to state that the year 1913 was remarkable for the immense flight of shorebirds, both spring and fall, while in 1915 there were practically none at all.

I am greatly indebted to Mr. Carl Lien for all of the notes from Jefferson County and Westport. And also to Messrs. D. E. Brown, of Seattle, Ray Gamble, of Tacoma, G. G. Cantwell, of Puyallup, and F. R. Decker, of Kiona.

Phalaropus fulicarius. RED PHALAROPE.—One specimen taken by Mr. Clark P. Streator at Ilwaco, November 9, 1889. Mr. Carl Lien obtained a second specimen that killed itself by striking the light of the Destruction Island lighthouse, in Jefferson County, on May 8, 1916. These two, representing both spring and fall, are oddly enough the only records that I have for the state.

Lobipes lobatus. NORTHERN PHALAROPE.—A common fall migrant on Puget Sound. My earliest record is a flock of about fifty on July 8, 1900, that were swimming in the tide-rips off Point Defiance, a part of the city of Tacoma. It seemed a trifle out of place to see them feeding where the water is about 200 feet deep, so that their habit of "whirling" for food could not have been very productive of results. The latest specimen taken was by Mr. D. E. Brown at the Tacoma tideflats on August 19, 1913, though large flocks have been reported as late as early September. Mr. Lien reports, for spring records, numerous specimens that killed themselves on the Destruction Island light from April 27 to June 10, 1916, inclusive of both dates.

Steganopus tricolor. WILSON'S PHALAROPE.—Not rare as a summer resident on the borders of the alkaline lakes on the east side of the Cascades. The nest has, I think, never been found in the state, but it has been perfectly evident to myself and other observers that they must breed. No westside records.

Recurvirostra americana. AVOCET.—Formerly this handsome wader was doubtless a common breeder on the alkaline lakes east of the Cascades, but lack of adequate protection has almost exterminated them. Mr. W. Leon Dawson and myself found a small colony breeding at Moses Lake

on May 15, 1906. The only record for the west side is a single bird seen by Cantwell on June 2, 1916, at Dungeness.

Gallinago delicata. WILSON'S SNIPE.—Summer resident east of the Cascades, where it undoubtedly breeds. In the vicinity of Tacoma they arrive with great regularity during the second week of September, from which time they may be found in varying numbers until late in May, although it is my opinion that they do not nest.

Cold weather does not seem to bother them much. On January 1, 1916, when all the fresh water marshes were frozen over, large numbers of them gathered on the Tacoma Flats. In a fresh water marsh, where a running stream kept itself free from ice for its width of some ten feet, I watched a snipe hunting for food. When it reached the stream I was considerably surprised to see it enter the water without the least hesitation. It made good speed in the swim across, holding its head close to its chest, with about an inch of the tip of the bill under water. Thinking the bird must be wounded I was again surprised to see it, after a search of the opposite bank, take wing and fly with all characteristic agility.

Macrohamphus griseus scolopaceus. LONG-BILLED DOWITCHER.—Common during migrations west of the mountains, but less numerous in spring. Earliest fall record is July 13, 1913. Latest, September 31, 1917. Both records are from the Tacoma Flats. On May 11, 1913, Mr. Ray Gamble found them in small numbers at Willapa Harbor, where they were still present on May 18. No eastside records.

Tringa canutus. KNOT.—This species is probably a regular spring and fall migrant west of the mountains, and it seems likely that at least a few may winter. Mr. Lien gives the earliest fall record as August 21, 1917, when he saw a single bird in company with a flock of Black Turnstones and four Wandering Tattlers. Knots were still present up to October 26, when he sent in his notes for this paper. Mr. Cantwell saw a Knot at Dungeness on February 25, 1915.

During the spring migration they are at times extremely numerous. This was especially noticeable during the spring of 1913, when Gamble visited the flats at Willapa Harbor. Mr. Gamble's first notes in that section were made on May 11, 1913, at which time he found the Knots literally in thousands, bringing home an amply sufficient number in proof of his statement. On May 18 at the same place they were becoming scarcer, but were still in considerable numbers. Mr. D. E. Brown visited the same locality on May 16, 1914, and found them to be again fairly numerous. Mr. Lien records them on May 6, 1916.

Arquatella maritima couesi. ALEUTIAN SANDPIPER.—Records for this sandpiper in the state are comparatively rare, though it seems not unlikely that the birds may occur more often than is generally supposed. Personally, I have never seen the species alive, but Cantwell, who has taken specimens, writes me concerning them as follows:—"The Aleutian Sandpipers about which you enquire were noted at Dungeness from the 10th to the 18th of March, 1916, both on the Lighthouse Spit reservation and

on the tide flats opposite town. There were about twenty individuals, in small bunches of three to six, associated with other sandpipers. When flushed they invariably travelled together. In the middle of February the year previous there were none of these birds about at this point, nor on November 22 to 28 of 1916. Lien records another specimen, a male, collected in Jefferson County on the ocean shore on January 8, 1917.

Pisobia maculata. PECTORAL SANDPIPER.—A tolerably regular and sometimes common fall migrant to the tideflats and freshwater marshes in the vicinity of Tacoma. I have no spring records. The earliest record is of one taken August 30, 1913, the latest one taken September 29, 1896. I have never seen them associating with the other sandpipers, always seeming to keep by themselves, but I have several times flushed this species and the Wilson's Snipe only a few feet apart in the same marsh. However, I am inclined to think that this was accident rather than design of the birds.

Pisobia bairdi. BAIRD'S SANDPIPER.—The only records that I have for this species were made by Mr. Stanton Warburton, Jr., and myself during the fall of 1916 on the Tacoma Flats. The first specimen taken was a female on July 26, from which date they were to be found at almost any time up to September 5, when the last was collected. They were found in singles, pairs, or trios, most often associating with the Semipalmated Plover (*Ægialitis semipalmata*) when any were to be found. When flying with a company of the other small sandpipers they would separate as soon as the flock alighted to feed, the Baird's going to comparatively dry ground for their food while the others waded about in the water and at the water's edge. They could not have been called common, but from one to three or four were to be found on almost any day.

Pisobia minutilla. LEAST SANDPIPER.—Although possibly not as abundant in the aggregate as the Western Sandpipers this tiny bird is the most often and most regularly found of all the Limicolæ. They make their first appearance during the first week of July, remaining well on towards the latter part of September. I have collected only a few of them, as it seemed a useless waste of life to take many specimens. Their tameness makes close approach to within a few feet easy, when their yellow-green legs at once distinguish them from the black-legged Western Sandpipers, the only species with which they can be confused. Earliest spring record, April 29, 1917, on the Tacoma Flats by S. Warburton, Jr.

Pelidna alpina sakhalina. RED-BACKED SANDPIPER.—These birds are among the last of the Limicolæ to arrive in the fall migration, often reaching Washington after many of the other species have left for the south. They make up for it, however, by staying with us all winter and late into the spring. On the Nisqually Flats I have seen them in flocks of hundreds when the marsh was a solid pack of snow and ice, the rise and fall of the tide making sufficient feeding grounds to keep them fat and strong. The earliest record, September 26, the latest being Mr. Gamble's remarkable shore-bird flight of May 11, 1913, when they were plentiful.

Ereunetes mauri. WESTERN SANDPIPER.—In total numbers this

species is probably the most abundant of all our Limicolæ, coming a few days after the Least Sandpipers and leaving, as a rule, a few days earlier. They are spring and fall migrants, the only exception being a specimen that I took on the Nisqually Flats on November 25, 1916. This was a female and very fat, in spite of the cold season. The primaries in one wing were not quite grown to full length, which may account for the delayed migration, but it was quite able to hold its own with a few Killdeer that were flying along with it.

Calidris leucophæa. SANDERLING.—The Sanderling is one of several species concerning which we have very little accurate data. They cannot be frequent visitors to upper Puget Sound, as I have no records. Cantwell reports them as abundant winter residents at Dungeness, his earliest arrivals being on August 18, 1916. He saw 200 on February 25, 1915, and also noted them between December 30, 1915, and January 16, 1916.

Limosa fedoa. MARBLED GODWIT.—We have but one record for this fine wader, the specimen being shot on the Tacoma Flats on September 3, 1905, by Mr. T. C. Harmer, of Tacoma. This was secured from a flock of about fifteen large waders of a similar size, but in California I have found these godwits so often in the same vicinity with Hudsonian Curlew that possibly the flock in question may have been composed of both of these species.

Totanus melanoleucus. GREATER YELLOW-LEGS.—While this bird is never actually common, it is probably more often seen than any of the other large waders, one or two generally greeting us upon every visit to the flats during spring and fall. It is among the first to reach us from the north in the fall migration, Brown taking one on the Tacoma Flats on July 4, 1914. They remain with us late into the season and are, to some extent, winter residents, as Cantwell reports them at Dungeness between December 30 and January 16, 1916. Latest spring record by Brown, is May 16, 1914, at Willapa Harbor.

Totanus flavipes. YELLOW-LEGS.—Seen during the fall of 1913, when they were by no means rare, twice in 1915, and one on May 23, 1918. When not alone they were most often found in company with Long-billed Dowitchers. On August 16, 1913, a flock of forty-eight were seen on the Tacoma Flats by Mr. Brown, who collected specimens. The writer was so fortunate as to take the first recorded, an adult male on July 25, 1913, and the earliest was seen July 7, 1915, at Tacoma. Brown saw one on August 7, 1915, at Seattle.

Helodromas solitarius cinnamomeus. WESTERN SOLITARY SANDPIPER.—A very rare fall migrant, and still more so in the spring. We have but four records in all, the first being one bird seen by myself August 22, 1912, on the Nisqually Flats. While this bird was not actually collected, it was very tame and I watched it from a distance of only a few feet for some time. I am so well acquainted with these birds in other parts of the country that there was no possibility of a mistake. Mr. Brown collected another at Seattle on August 6, 1915, while Mr. F. R. Decker took one at

Kiona, in eastern Washington, on August 6, 1916. Both these birds were females. The only spring records are a very fine male that was taken by Mr. Brown at South Tacoma on May 6, 1914, and three that he saw at the same place on the 7th.

Catoptrophorus semipalmatus inornatus. WESTERN WILLET.— I have heard of one or two that have been shot on the coast, but the only specimen that I have seen is a female taken by Mr. Brown on the Tacoma Flats, September 6, 1913. It was alone, not being in company with any other shorebirds.

Heteractitis incanus. WANDERING TATLER.— We do not know much about this species. Mr. Lien's earliest record is of four seen August 21, in company with one Knot and a flock of Black Turnstones. His latest record is September 8, and six is the greatest number he has ever seen at one time. All of these records were made in 1917.

Tryngites subruficollis. BUFF-BREADED SANDPIPER.— The only records of these birds that I have for the state are of a male and female taken by Mr. Lien at Westport, on September 3, 1917. He first saw the pair on September 1, and again on the 2d, visiting the place with a gun on the 3d and collecting them. Mr. Lien describes them as not at all wild, and that, "They frequented a salt marsh, or grass covered tide flat, towards the upper end and where the marsh edges off into the sand."

Actitis macularia. SPOTTED SANDPIPER.— These birds are summer residents throughout the state and breed, although nowhere to be found in abundance. I am uncertain of the conditions east of the Cascades, but in the vicinity of Puget Sound they are resident throughout the year, being found on the tideflats even in the coldest winters.

Numenius americanus. LONG-BILLED CURLEW.— Civilization is working the inevitable with these birds. At one time they were doubtless common summer residents of eastern Washington, but my only record for the state in recent years is of a pair that I found at Kiona, in Benton County, during the second week of May, 1904. At this time they had newly hatched young, concerning which they were most solicitous, hovering only ten or fifteen feet above my head and whistling continuously.

Numenius hudsonicus. HUDSONIAN CURLEW.— A regular and very abundant spring migrant, usually arriving with great regularity on April 22, which is my earliest record. Latest spring record June 2, 1916. The only season when I have positively known it to visit us in the fall is during the present year of 1917, when they were very abundant. The first seen was a male that I collected on July 16, the last being shot on October 1. The record made on June 2, 1916, was at Dungeness where Cantwell saw about fifty in scattered flocks.

Squatarola squatarola. BLACK-BELLIED PLOVER.— A common fall and spring migrant. I have no reports of them from the east side. Latest spring record May 18, 1913. Earliest fall record August 20, 1916. They are doubtless winter residents, as Cantwell saw twenty-five at Dungeness on January 24, 1916.

Charadrius dominicus dominicus. GOLDEN PLOVER.—It seems more than possible that the Golden Plover are more numerous along the coast than is generally supposed, although doubtless very far from being common. I have only two records in which the dates and other items are perfectly satisfactory. The first is a female taken at Dungeness on November 14, 1915, by Mr. F. P. McIntyre, of Tacoma. The second was taken by Mr. Lien at Westport on October 7, 1917. It was in the company of four other plover, which may have all been Black-bellied as was one of them that dropped with the same shot that killed the Golden Plover.

Oxyechus vociferus. KILLDEER.—Very abundant throughout the state, though I am not certain whether it winters on the east side. West of the mountains, in the Puget Sound Region, the Killdeer may be called a fairly common resident the year around, although probably a considerable proportion of them migrate southward in the fall. However this may be, they are to be found regularly during the winter on such of the large tide flats as the Nisqually, in Thurston County. Their numbers at this season are largely dependent upon the extent to which the inland fresh water swamps and marshes are frozen over. In January, 1916, one of the longest spells of icy weather was experienced that has ever been known on Puget Sound, during which practically all fresh water was frozen over. During this period the Killdeer assembled in hundreds on the Nisqually, and also on the Tacoma Flats in Pierce County.

Nesting begins very early, as I have seen young a week old as early as April 21, and extends well into June at least.

Ægialitis semipalmata. SEMIPALMATED PLOVER.—A regular spring and fall migrant. Never abundant, but frequently seen in twos and threes, either by themselves or in company with some of the smaller sandpipers. Earliest fall record: two taken on the Tacoma Flats on August 8, 1916. Latest spring record: two taken by Cantwell near Tacoma on May 18, 1910.

Ægialitis nivosa. SNOWY PLOVER.—Brown found these birds at Willapa Harbor on May 16, 1914. There appeared to be a small colony of them, and a few specimens taken showed beyond a doubt that they were breeding at that time, although no nests were found.

Aphriza virgata. SURF-BIRD.—These birds are probably not uncommon along the coast as migrants and would appear to be resident in winter to some extent, as shown by the observations of Mr. Lien. Specimens were taken by him on the following dates:—July 20, 1915, November 27, 1916, December 3, 1916, January 14, 1917, and April 28, 1917. The first specimens recorded were by Dr. A. K. Fisher, who took three from a small flock at the Blakeley Rocks, near Seattle, on August 30, 1897. However, it seems to me unlikely that they would be of frequent occurrence so far inland.

Arenaria interpres morinella. RUDDY TURNSTONE.—Mr. Gamble found this species present in small numbers on his visit to Willapa Harbor on May 11, 1913, when he collected a few specimens. They were still

present in that locality on May 18, 1913, when two more specimens were taken. Mr. Brown saw two at the same place on May 16, 1914, although circumstances prevented his collecting any.

***Arenaria melanocephala*.** BLACK TURNSTONE.—Migratory, for the most part along the coast, although Mr. Brown shot a pair at Tacoma on August 24, 1913, that were sitting on a raft of logs out in the bay. Mr. Cantwell reports them as winter residents at Dungeness, where his records range from August 18, December 30, January 16, to February 25.

Mr. Lien reports twenty as being the greatest number that he has seen at one time.

***Hæmatopus bachmani*.** BLACK OYSTER-CATCHER.—Without doubt resident throughout the year, although specific records for every winter month are lacking. Mr. Lien has taken them in November and on December 22, 1916. They breed fairly commonly on the rocky islands off the coast, fresh eggs being taken throughout the month of June. Three eggs is the number most commonly found. The nest is placed among the rocks fifteen feet or more beyond the reach of high water, and is composed of small stones, chips of rock, with a few small pieces of crab claws and shell.

THE BIRDS OF DESECHEO ISLAND, PORTO RICO.

BY ALEXANDER WETMORE.

THE island of Desecheo, west of Porto Rico, in Mona Passage, is distant nearly seven leagues from the town of Aguadilla. Though Desecheo has been a prominent landmark for ships passing between Porto Rico and Santo Domingo since the early voyages of discovery, its rough broken shoreline, with difficult landings and lack of a certain water supply, have left it little known. Fray Iñigo Abbad in 1788¹ describes the island as uninhabited but frequented at times by smugglers. It was said that there were wild goats on it at one time which, with crabs and shellfish, furnished food to these casual visitors. The banks off the southern shore have been noted for their fish, and fishermen coming at irregular intervals

¹ (Abbad y Lasierra, Fray Iñigo) *Historia geográfica, civil y política, de la Isla de S. Juan Bautista de Puerto Rico*, Madrid, 1788, p. 203.